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121 CGCTGGGTCCCCTCTCCCTGGCGCCCTGCCCGACCTGCGCAAGCACAGGACGTGCTGG
L G P L S P G A L P R P A Q A Q D V V D
181 ACCTGGACTTCTTACCCAGGAGCGCTGCACCTGGTGAGCCCTCGTTCTGTCCTGCTCA
L D F F T Q E P L H L V S P S F L S V T
241 CCATTGAGCCCAACCTGGCCACGGACCGCGGTTCCTCATCTCTGGGTTCTCCAAAGC
I D A N L A T D P R F L I L L G S P K L
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R T L A R G L S P A Y L R F G G T K T D
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421 CTCAGTCAACCAGGATATTTGCAAATATGGATCCATCCCTCTGATGTGGAGGAGAAGT
Q V N Q D I C K Y G S I P P D V E E K L
481 TACGGTTGGAATGGCCCTACCAGGAGCAATTGCTACTCCGAGAACACTACCAGAAAAAGT
R L E W P Y Q E Q L L L R E H Y Q K K F
541 TCAAGAACAGCACCTACTCAAGAAGCTCTGTAGATGTGTATACATTTTGCAAAGTCTGCT
K N S T Y S R S S V D V L Y T F A N C S
601 CAGGACTGGACTTGATCTTTGGCCTAAATGCGTTATTAAGAAGCAGAGATTTCAGTGGGA
G L D L I F G L N A L L R T A D L Q W N
661 ACAGTTCTAATGCTCAGTTGCTCTGACTACTGCTCTTCAAGGGGTATAACATTTCTT
S S N A Q L L L D Y C S S K G Y N I S W
721 GGGAAGTAGGCAATGAACCTAACAGTTTCCTTAAGAAGGCTGATATTTTCATCAATGGGT
E L G N E P N S F L K K A D I F I N G S
(T)
781 CGCAGTTAGGAGAAGATTATTTCAATTGCATAAACTTCTAAGAAAGTCCACCTTCAAAA
Q L G E D Y I Q L H K L L R K S T F K N
(F)
841 ATGCAAACTCTATGGTCTGATGTTGGTCCAGCCTCGAAGAAAGACGGCTAAGATGCTGA
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901 AGAGCTTCTGAAGGCTGGTGGAGAAGTGATTGATTGATTGATGGCATCACTACTATT
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1021 TTTTCATCTGTGCAAAAAGTTTTCAGGTGGTTGAGAGCACCAGGCTGGCAAGAGGTCT
S S V Q K V F Q V V E S T R P G K K V W
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1621 GTTCACTGGGCTTGCCAGCTTTCTCATATAGTTTTTTTGTGATAAGAAATGCCAAAGTGT
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1681 CTGCTTGATCTGAAAAATAAATATACTAGTCTGACACTG
A C I

Fig. 1

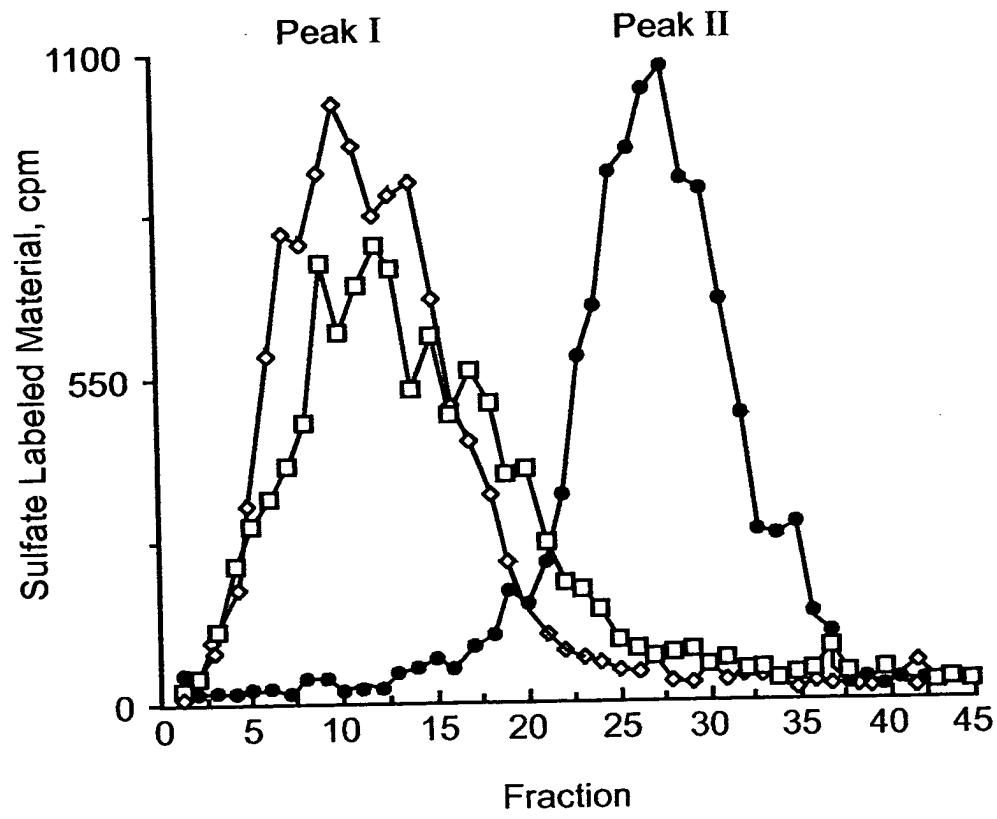


Fig. 2

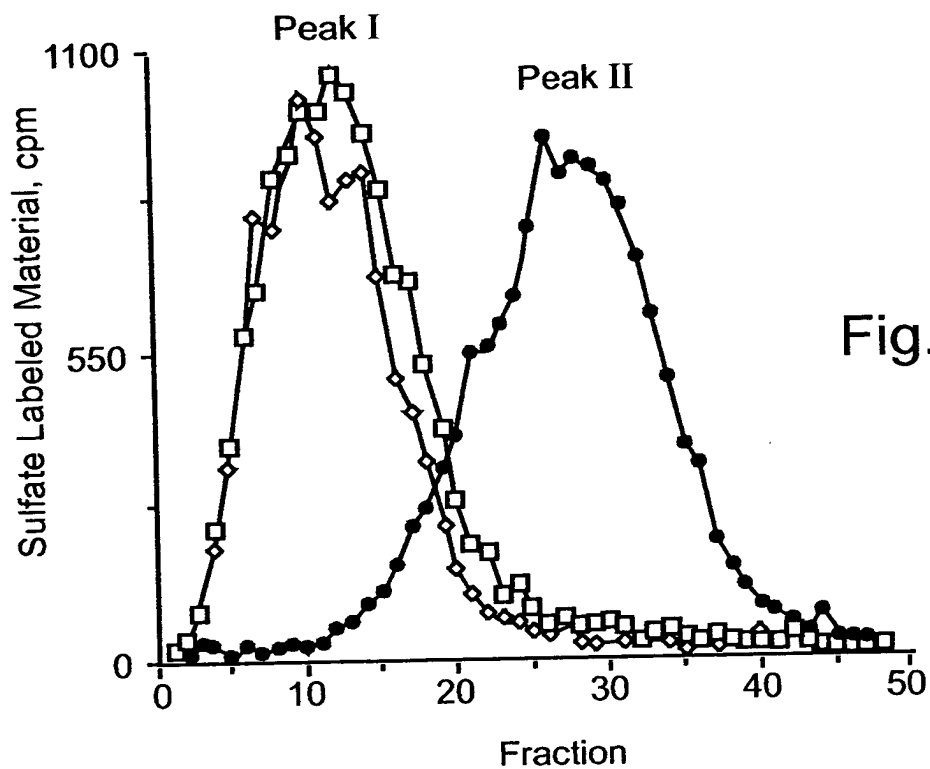


Fig. 3a

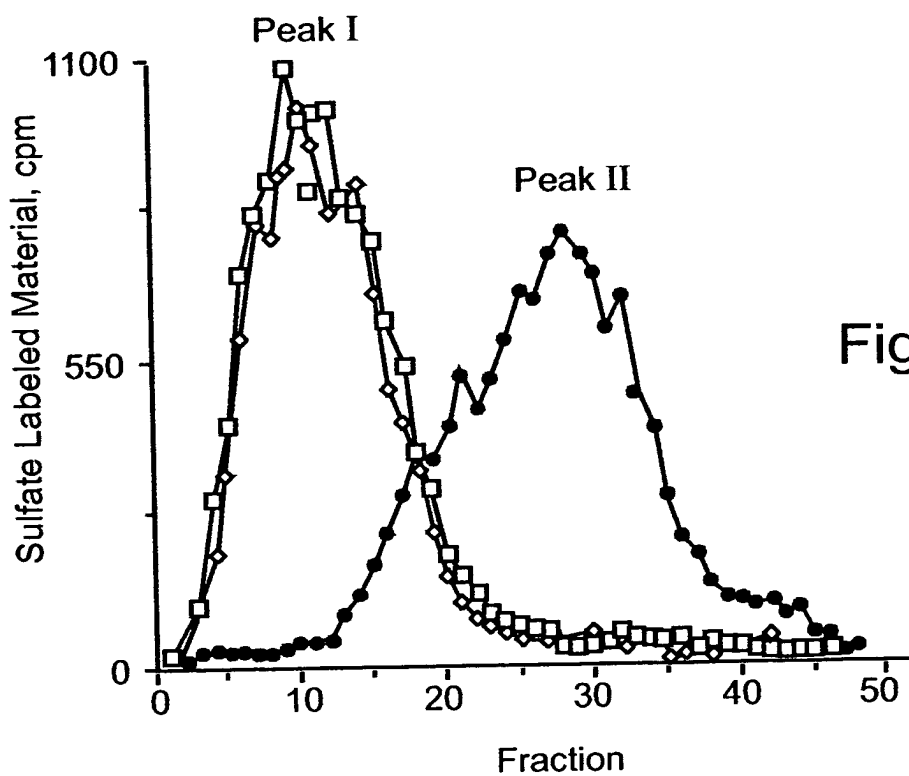


Fig. 3b

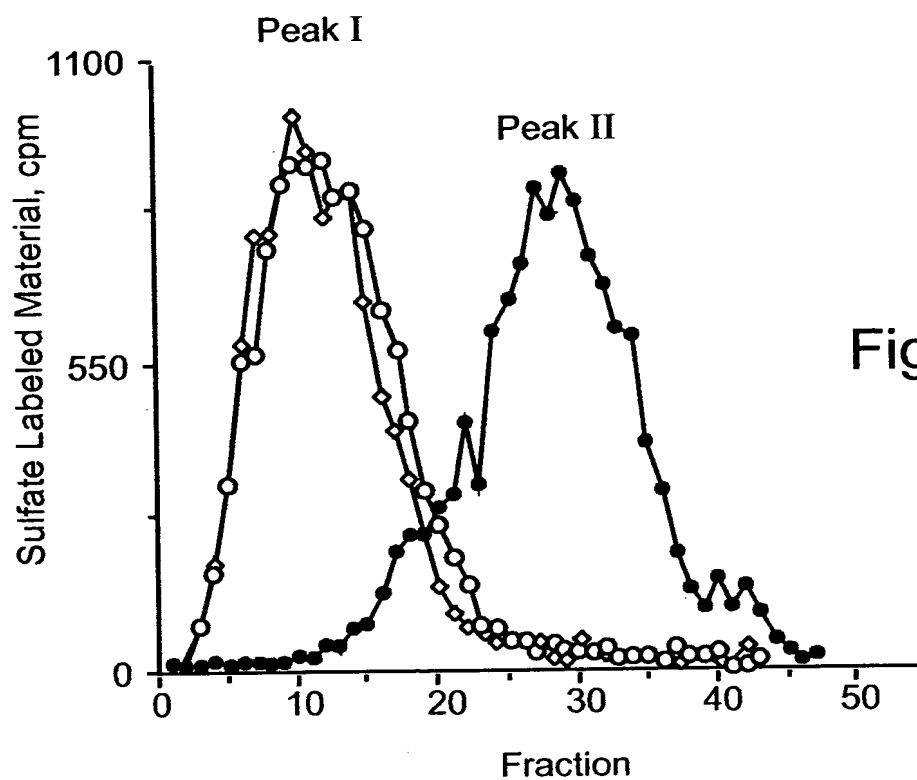


Fig. 4

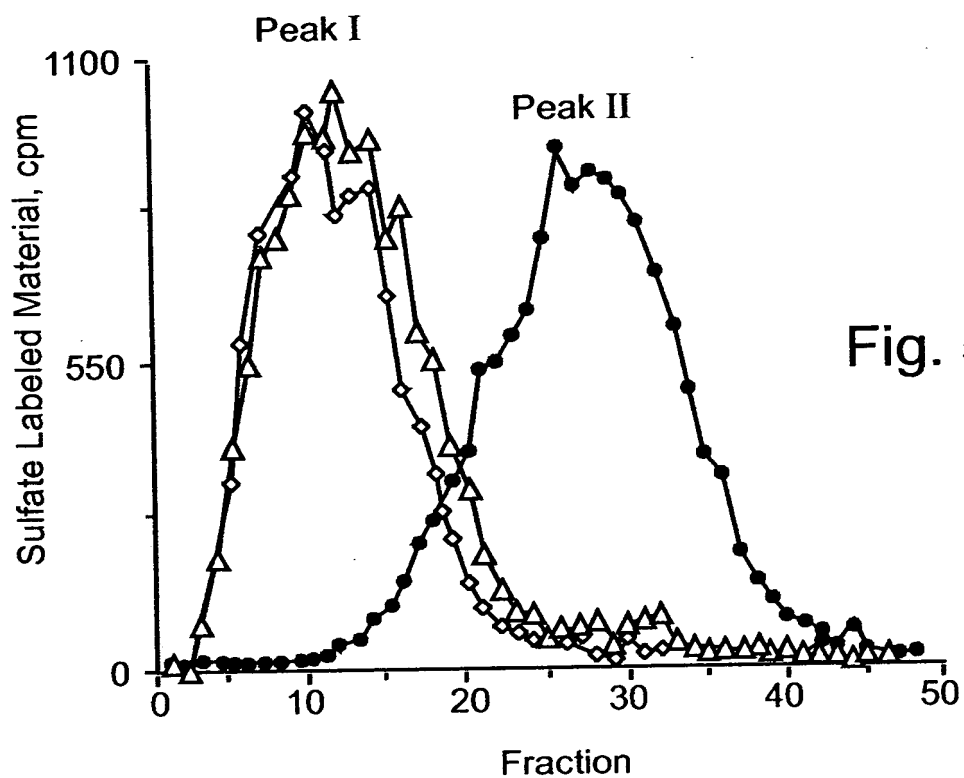


Fig. 5a

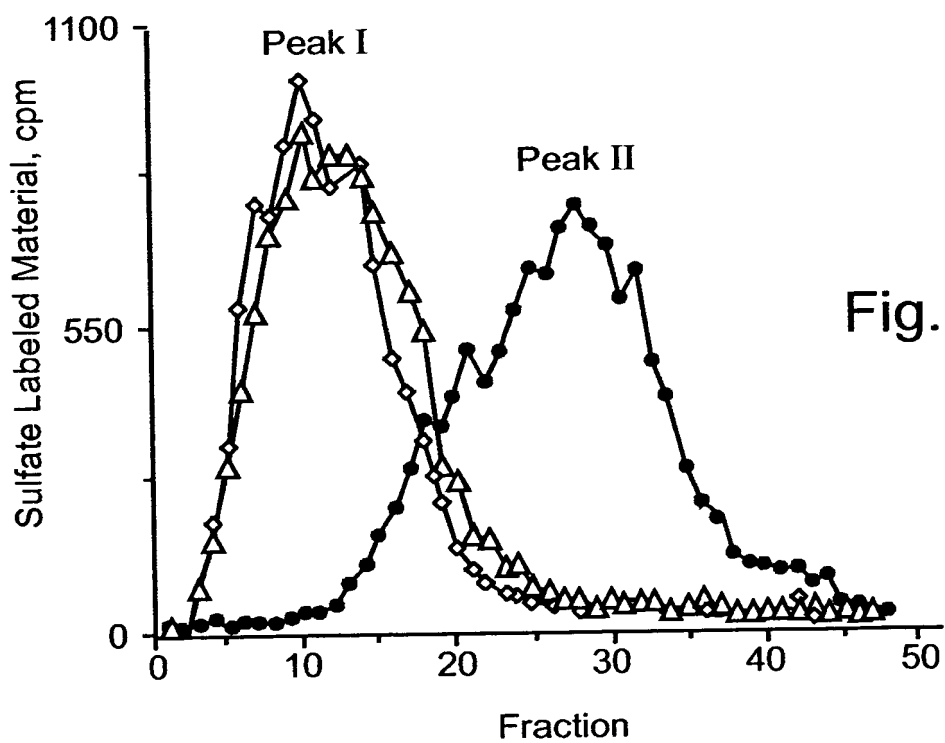
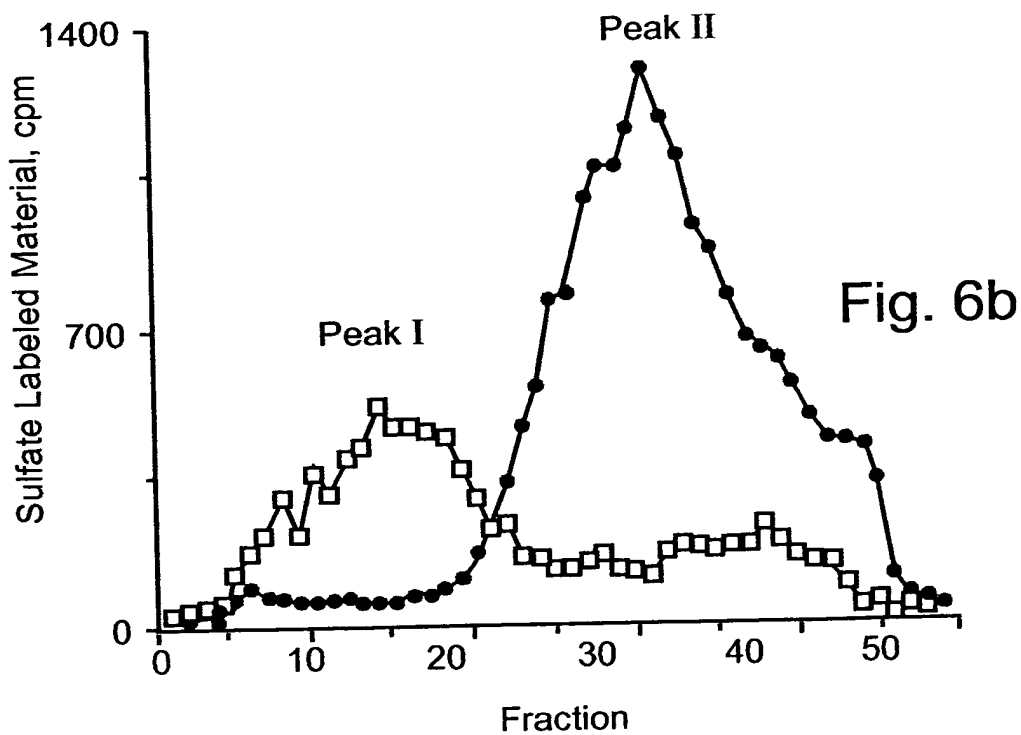
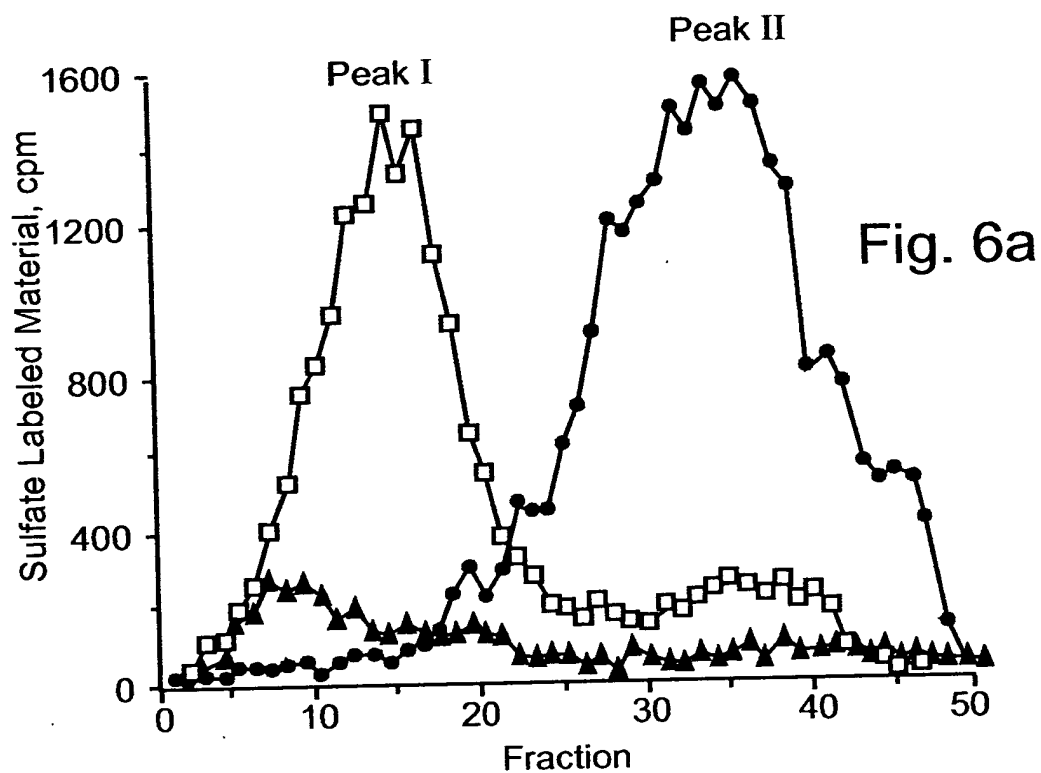
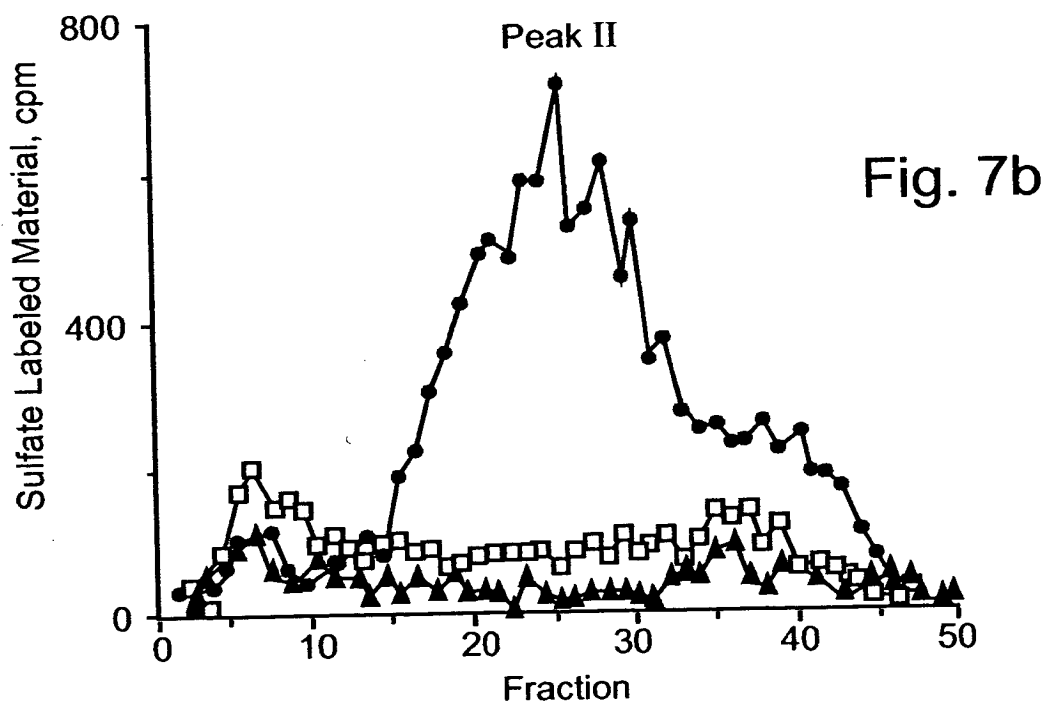
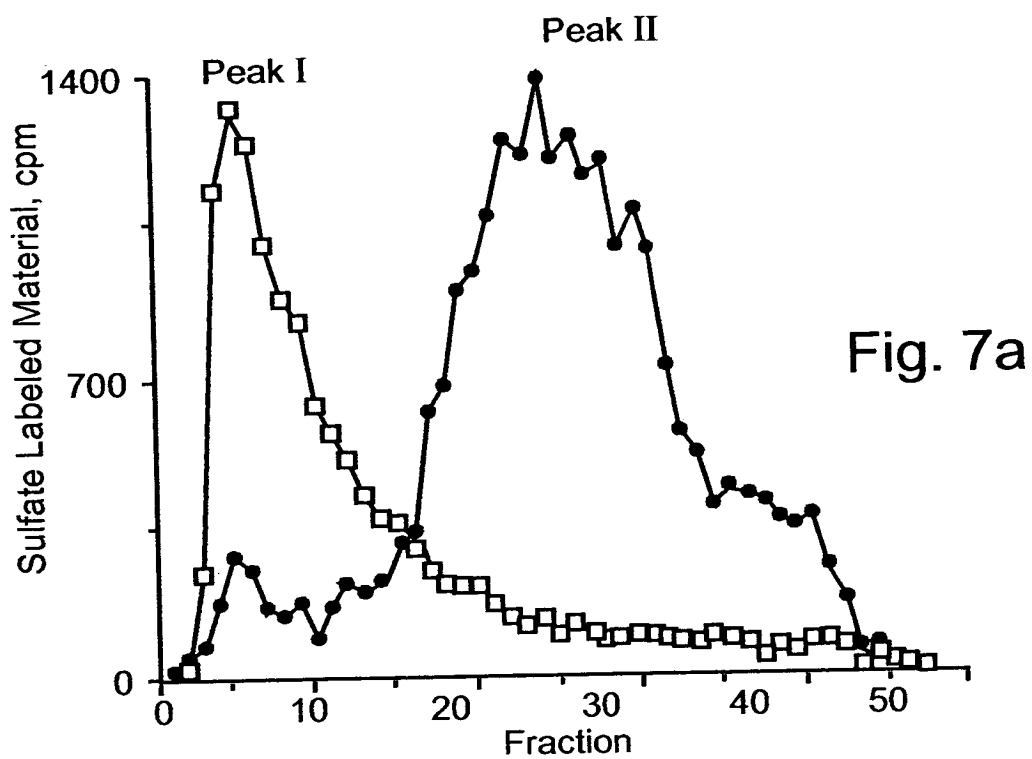
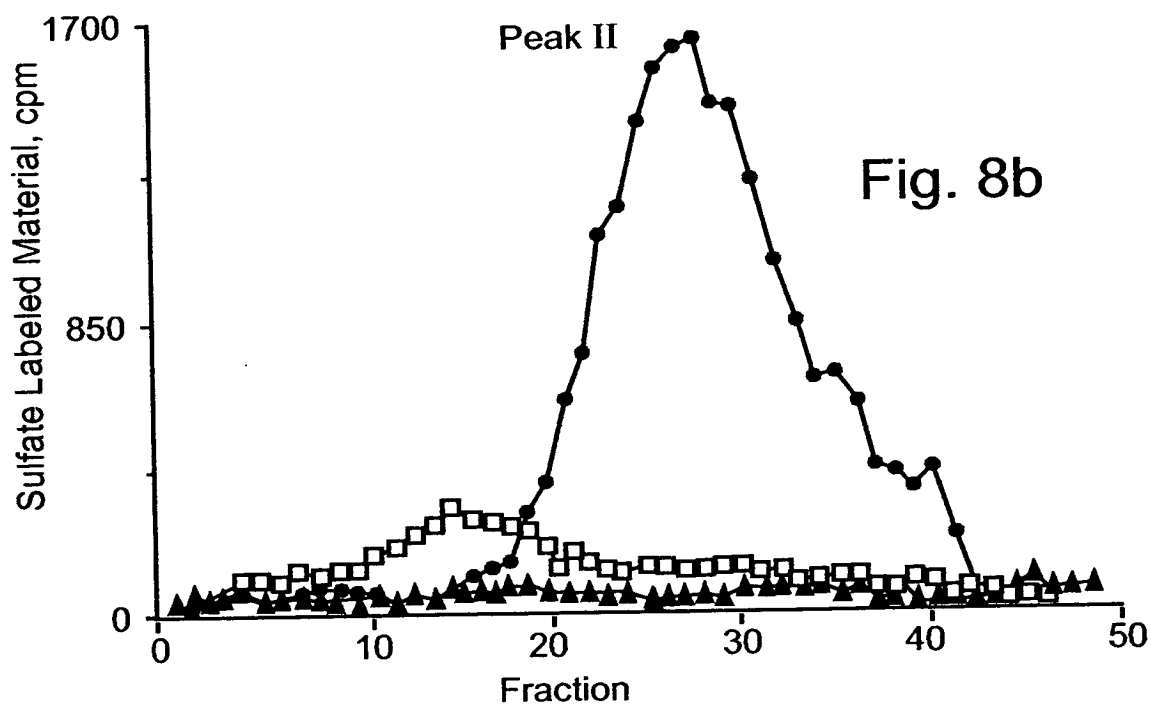
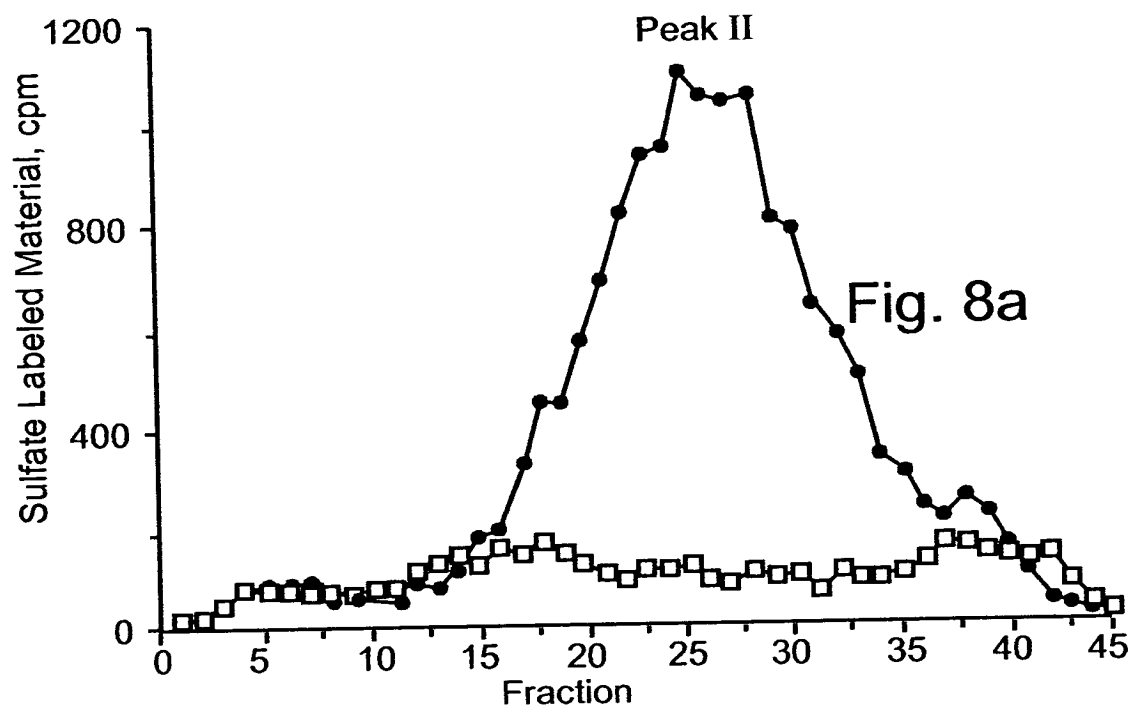
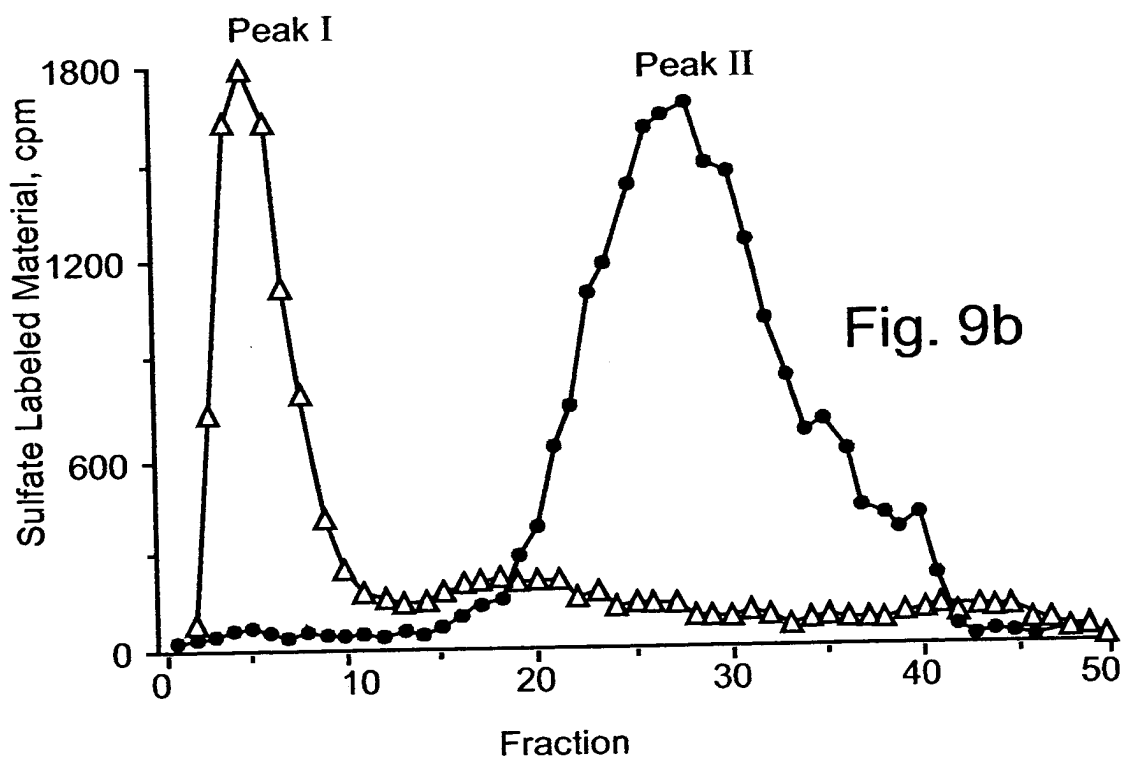
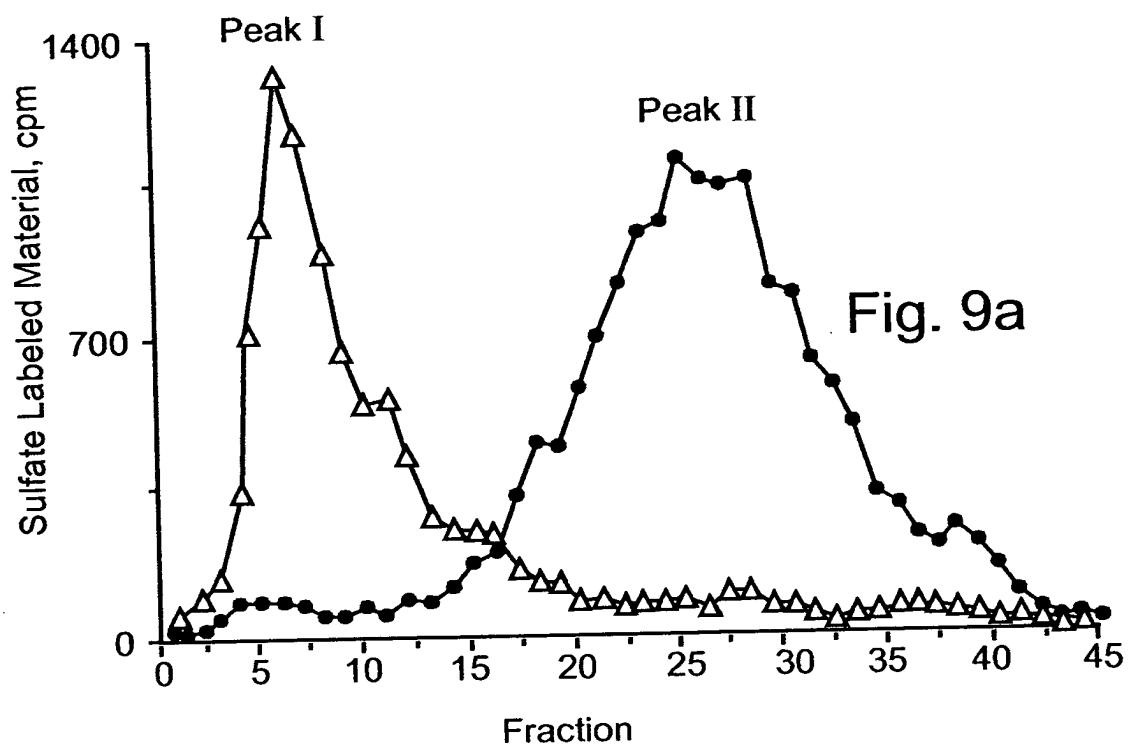


Fig. 5b









10/33

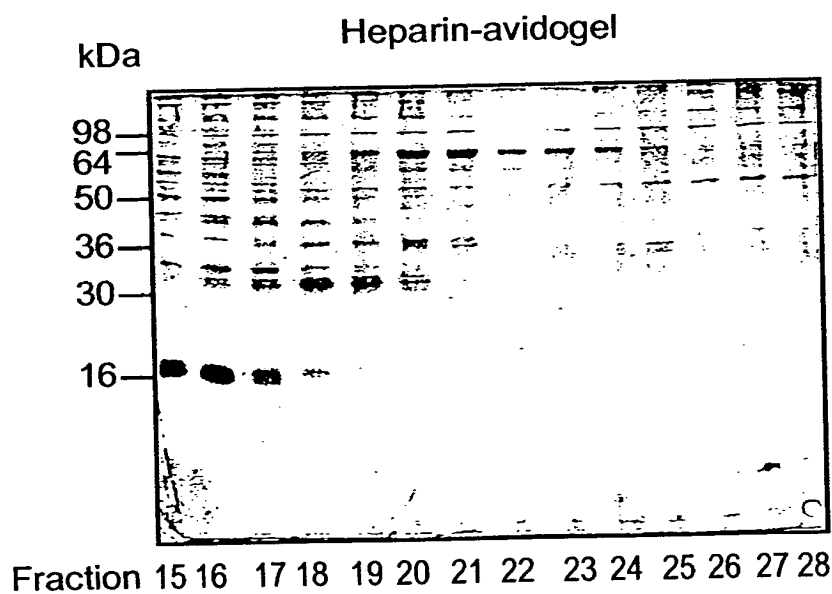
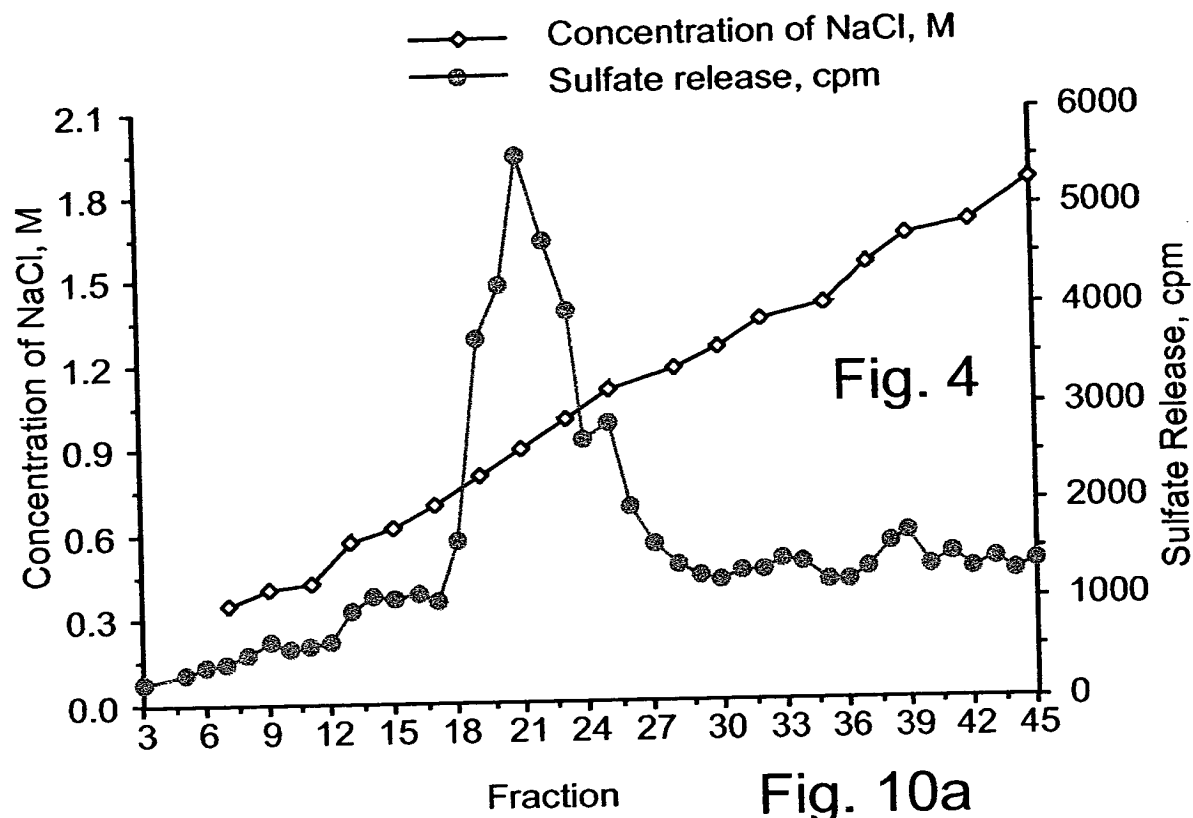
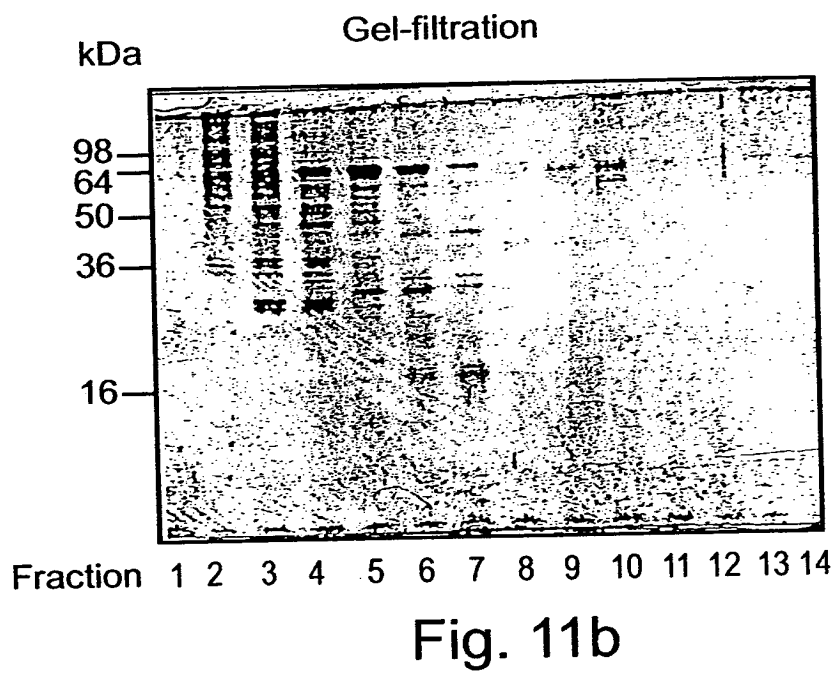
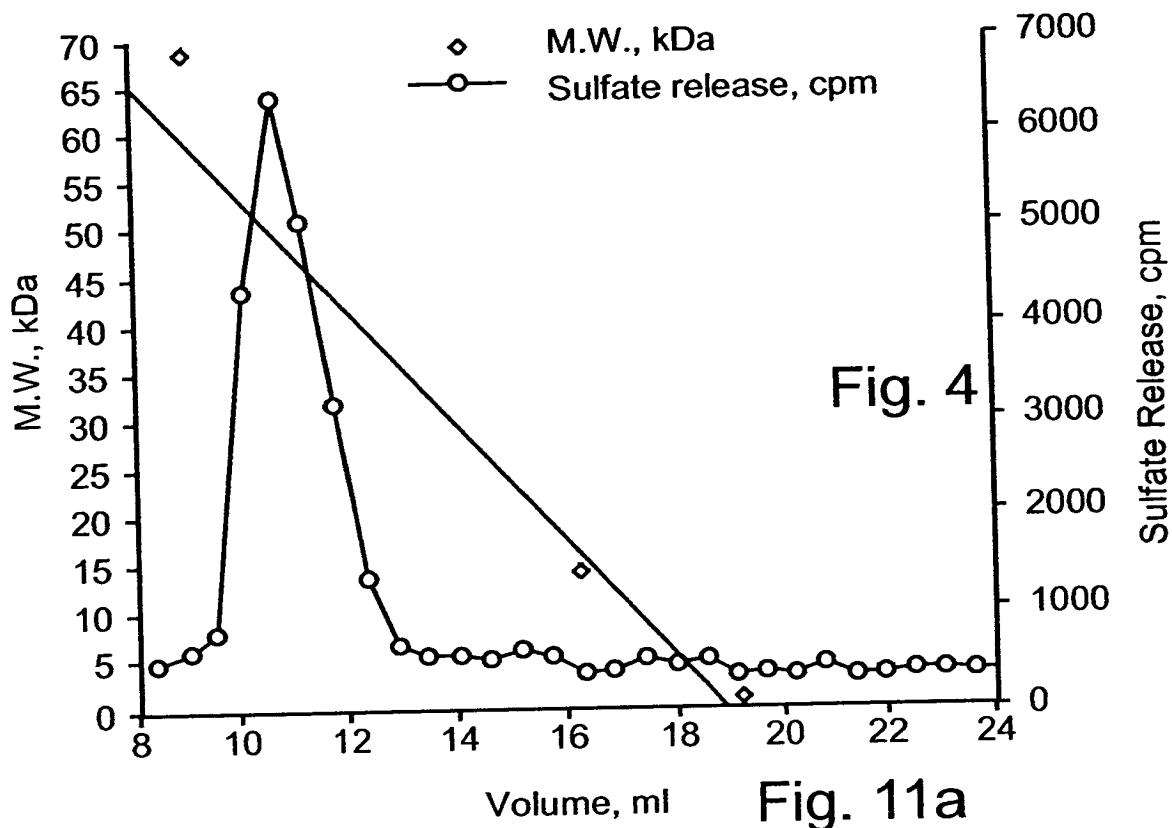


Fig. 10b



12/33

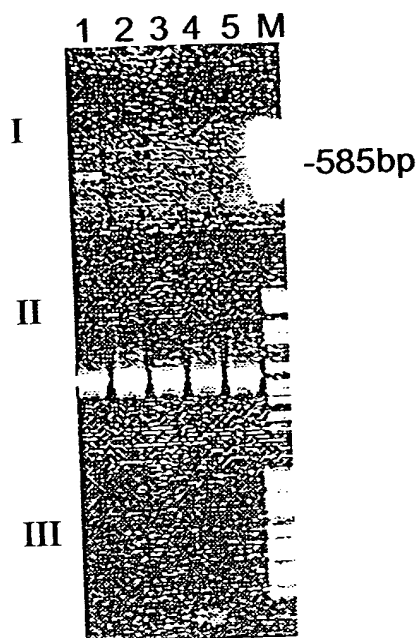


Fig. 12a

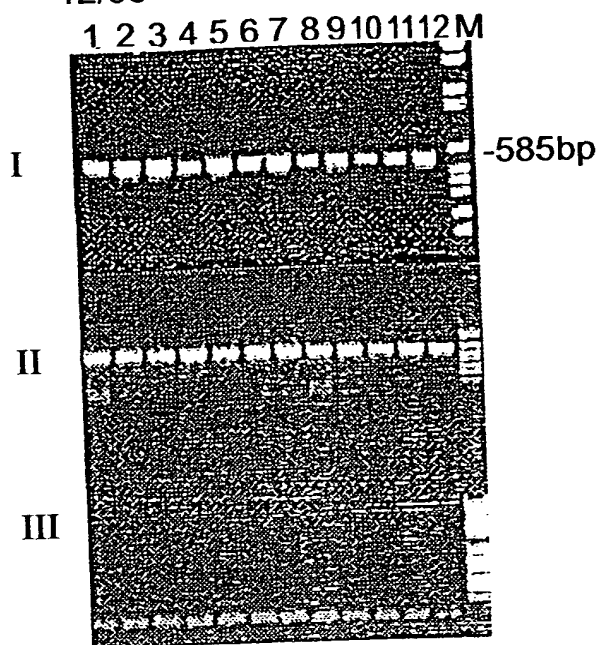


Fig. 12b

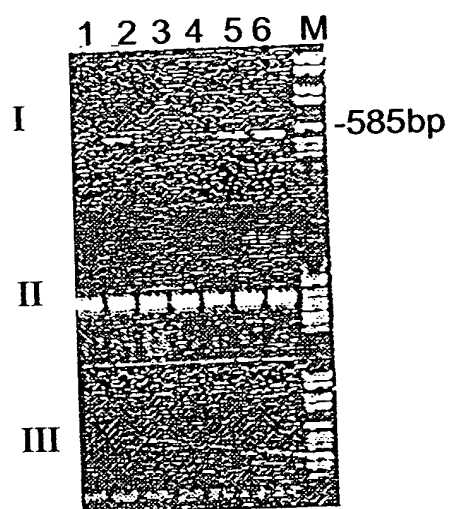


Fig. 12c

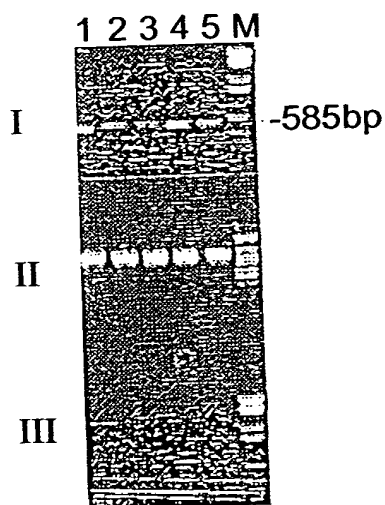


Fig. 12d

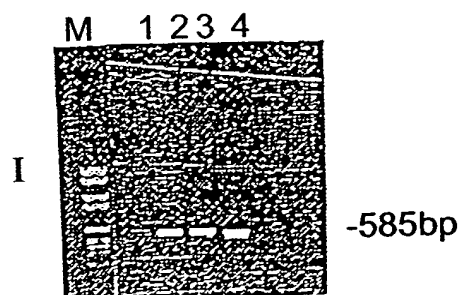


Fig. 12e

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 mouse GCACCCTTGCTGTCCAACACCTTTGCAGCTGGCTTTATGTGGCTGGATAA 100
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 human GCGCCCTTGCTATCCGACACCTTTGCAGCTGGCTTTATGTGGCTGGATAA 1165

 mouse ATTGGGCCTGTCAGCCCAGATGGGCATAGAAGTCGTGATGAGGCAGGTGT 150
 |||||
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Fig. 13

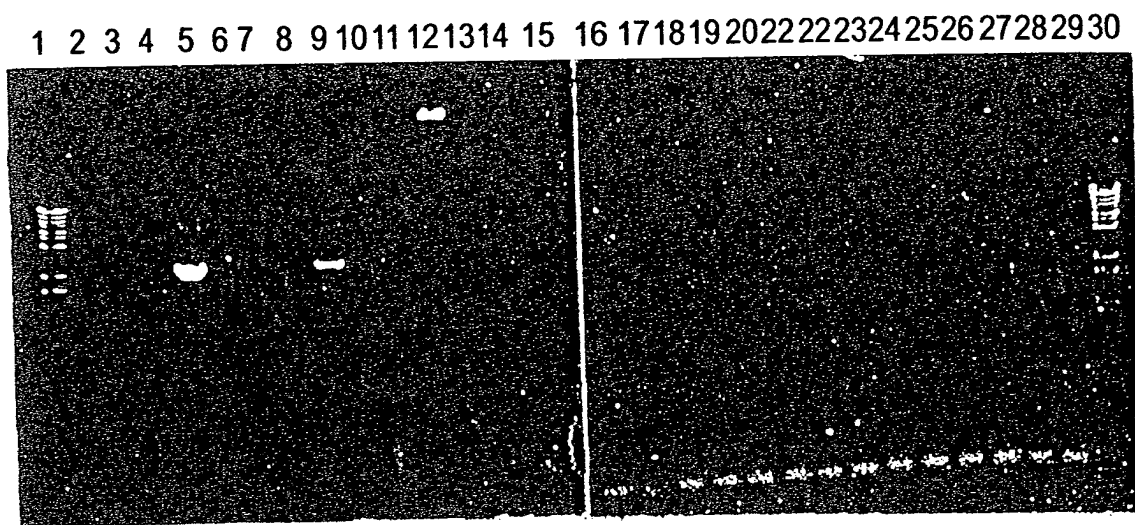


Fig. 14

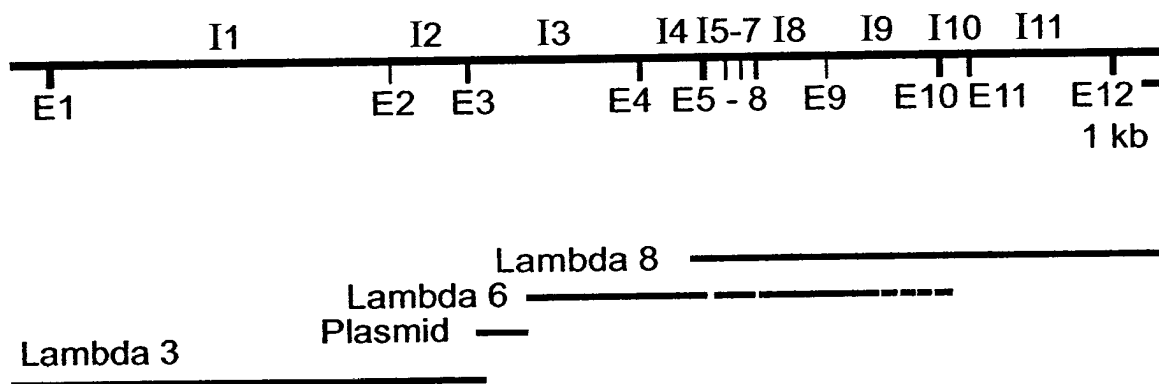


Fig. 15

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Fig. 16

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Fig. 16
(continued)

| | | | | | | | | | | | | | | |
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| ct | ag | tag | ccat | at | t | aaaa | agg | t | aaaa | agaa | ca | agt | gaa | 6150 |
| ta | at | ttt | at | ttt | tag | tt | ca | tag | at | ccaaa | at | gtt | t | 6200 |
| at | ata | aaaa | at | ta | at | gag | gt | at | ttt | at | t | ct | t | 6250 |
| ta | tt | ct | tata | aat | ct | ggc | gt | gt | at | ttt | ac | ag | cact | 6300 |
| ct | tt | ct | tt | ct | tt | tt | tt | tt | tt | tt | tt | tt | tt | 6350 |
| ag | ag | taca | aat | ggc | gt | tac | ct | cgg | ct | cact | gca | ac | ct | 6400 |
| ca | ag | tt | at | t | ct | cct | gc | ct | cag | t | ct | cc | aa | 6450 |
| ca | cc | cc | ac | gc | ct | gg | cta | at | t | gt | gt | at | ttt | 6500 |
| ca | t | gt | tg | gcc | agg | cta | at | ct | caa | act | c | ct | gag | 6550 |
| ct | c | gg | cct | cc | aa | ag | t | gt | tg | g | at | t | ac | 6600 |
| ct | cag | at | ta | act | at | at | t | ca | ag | cg | t | cag | tag | 6650 |
| at | gg | tag | tg | g | ac | ag | t | ac | ag | at | ct | g | at | 6700 |
| ca | tag | tt | c | act | aat | gc | ac | gg | t | aaaa | aaa | ag | t | 6750 |
| ag | aaa | t | c | ct | aaa | act | gc | ag | g | caaaa | ag | t | gg | 6800 |
| g | ata | at | g | ca | acc | at | g | ct | t | g | ca | at | t | 6850 |
| g | caa | ag | t | t | ca | t | cc | at | t | t | g | ca | at | 6900 |
| t | t | ca | at | t | at | tag | at | t | ct | t | g | ca | t | 6950 |
| tag | aaaa | at | t | act | t | at | ca | at | gt | t | aa | ac | ac | 7000 |
| aa | ag | agg | t | gc | ag | ct | cccc | at | gt | gc | ct | at | t | 7050 |
| cc | aa | agg | g | aa | ca | aa | agg | g | ct | ggg | g | ca | at | 7100 |
| ct | c | ct | gg | aa | ag | t | g | ct | gt | ct | ct | ct | ct | 7150 |
| act | a | ac | ct | gt | cc | act | gt | gc | ct | gg | ag | cc | ct | 7200 |
| gt | c | ct | ct | ca | ga | at | at | ct | ct | ct | ct | ct | ct | 7250 |
| g | ct | at | t | ct | ct | g | at | g | ac | ct | tt | t | g | 7300 |
| g | ca | at | t | ct | cc | at | ag | t | cc | ag | t | ct | gg | 7350 |
| g | ga | t | g | ac | ag | cc | act | tag | tt | g | aa | ct | cc | 7400 |
| t | t | t | g | act | t | gt | t | ac | ct | ct | tt | t | g | 7450 |
| t | t | g | aaa | at | g | ac | gata | ata | at | g | cc | at | t | 7500 |
| t | t | g | ag | t | gaa | ag | ag | gg | g | ag | ct | t | cc | 7550 |
| ct | g | at | gt | gc | att | ac | gg | gt | at | g | cc | at | ct | 7600 |
| ca | cat | ct | gg | ct | ct | cat | cc | ag | t | gc | ct | ct | g | 7650 |
| t | t | act | t | act | cccc | ct | t | at | ta | act | ga | ag | act | 7700 |
| ct | ct | cc | act | t | cc | tag | ct | cac | cat | ct | ct | ag | t | 7750 |
| g | ata | act | gt | ct | cag | tt | ct | t | ca | ct | cac | at | t | 7800 |
| t | ac | act | ca | ag | t | gt | ta | ac | aga | acc | ag | ct | t | 7850 |
| a | tt | t | cat | ct | ca | act | ct | gt | at | t | cag | t | g | 7900 |
| a | g | cc | at | gg | t | gaga | at | at | t | t | ac | cat | g | 7950 |
| a | g | ca | cc | t | t | t | ct | g | ag | ag | cc | ag | cat | 8000 |
| cc | at | c | ata | ac | aa | at | t | t | t | t | aa | ac | ct | 8050 |
| t | act | t | ct | cc | at | at | ct | g | at | t | g | ag | ct | 8100 |
| ct | t | g | ta | ata | aa | ta | ac | cc | aa | at | cc | ct | gt | 8150 |
| act | aa | ac | ct | gg | t | t | tag | t | cc | aa | cc | at | t | 8200 |
| g | tg | gg | cc | ca | aaa | ac | ct | g | gaa | at | g | gaaa | at | 8250 |
| a | t | at | ta | ata | ag | cc | at | t | t | ta | at | g | ct | 8300 |
| g | t | at | ag | ct | gg | g | ct | at | t | g | ag | ct | ct | 8350 |
| c | ag | cc | ac | ac | ag | act | gat | gt | g | cc | aa | ac | at | 8400 |
| c | ct | gg | cc | ct | tag | gt | t | ac | cc | t | ta | ac | t | 8450 |
| ct | ct | act | t | t | t | aaaa | at | ct | ct | g | act | cc | ct | 8500 |
| a | cat | g | acc | ata | act | t | ct | g | ct | cc | aa | g | aaa | 8550 |
| c | ct | t | t | ct | ct | ct | gt | cat | caa | at | ct | g | ac | 8600 |
| t | t | ct | ct | ct | t | ct | gt | ct | cag | t | ct | g | ct | 8650 |
| c | cc | gt | cc | ct | cc | ca | cccc | ca | agg | act | t | gc | ct | 8700 |
| c | ct | ct | ct | gt | at | ct | t | ca | act | cc | ct | ct | ct | 8750 |

Fig. 16
(continued)

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Fig. 16
(continued)

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Fig. 16
(continued)

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 L R T L A R G L S P A Y L R F G
 GCACCAAGACAGACTTCCTAATTTTCGATCCCAAGAAGGAATCAACCTTT 15250
 G T K T D F L I F D P K K E S T F
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 E E R S Y W Q S Q V N Q
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Fig. 16
(continued)

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Fig. 16
(continued)

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Fig. 16
(continued)

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Fig. 16
(continued)

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Fig. 16
(continued)

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Fig. 16
(continued)

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| ccccaaaatatgccactttggcataaggattatttcgagctaaaggcaac | 33100 |
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| aacttgccaccccagagactaaaaatccttttcccttgtcatgtctcttg | 33350 |
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| ttcctccctctcttcatctcttgaatttattaatgtgaaaaaacagggt | 34200 |
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Fig. 16
(continued)

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Fig. 16
(continued)

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Fig. 16
(continued)

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 A C I *
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Fig. 16
(continued)

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Fig. 16
(continued)

50

| | | | | | |
|-------|------------|------------|------------|------------|------------|
| human | MLLRSKPALP | PPIMLLLLGP | LGPLSPGALP | RPAQAQDVVD | LDFFTQEPLH |
| mouse | -----ML | RLLLLWLWGP | LGALAQGAPA | GTAPTDDVVD | LEFYTKRPLR |
| rat | ----- | ~LLLLWLWGR | LRALTQGTPA | GTAPTKDVVD | LEFYTKRLFO |

100

| | | | | | |
|-------|------------|------------|------------|------------|------------|
| human | LVSPSFLSVT | IDANLATDPR | FLILLGSPKL | RTLARGLSPA | YLRFGGKTGD |
| mouse | SVSPSFLSIT | IDASLATDPR | FLTFLGSPRL | RALARGLSPA | YLRFGGKTGD |
| rat | SVSPSFLSIT | IDASLATDPR | FLTFLSSPRL | RALSRLSPA | YLRFGGKTGD |

150

| | | | | | |
|-------|------------|------------|------------|------------|------------|
| human | FLIFDPKKES | TFEERSYWQS | QVNQDICKYG | SIPPDVEEKL | RLEWPYQEQI |
| mouse | FLIFDPDKEP | TSEERSYWKS | QVNHDIRSE | PVSAAVLRKL | QVEWPFQELL |
| rat | FLIFDPNNEP | TSEERSYWQS | QDNNDICGSD | RVSADVL--- | ----- |

200

| | | | | | |
|-------|------------|------------|------------|------------|------------|
| human | LLREHYQKKE | KNSTYSRSSV | DVLYTFANCS | GLDLIFGLNA | LLRTADLQWN |
| mouse | LLREQYQKEF | KNSTYSRSSV | DMLYSFAKCS | GLDLIFGLNA | LLRTPDLRWN |
| rat | ----- | ----- | ----- | ----- | ----- |

250

| | | | | | |
|-------|------------|------------|------------|------------|------------|
| human | SSNAQLLLDY | CSSKGYNISW | ELGNPNNSFL | KKADIFINGS | QLGEDYIQLH |
| mouse | SSNAQLLLDY | CSSKGYNISW | ELGNPNNSFW | KKAHILIDGL | QLGEDFVELH |
| rat | ----- | ----- | ----- | ----- | ----- |

300

| | | | | | |
|-------|------------|------------|------------|------------|-------------|
| human | KLLRKSTFKN | AKLYGPDVGQ | PRRKTAKMLK | SFLKAGGEVI | DSVTWHHYLL |
| mouse | KLLQRSAPQN | AKLYGPDIGQ | PRGKTVKLLR | SFLKAGGEVI | DSLTVWHHYLL |
| rat | ----- | ----- | ----- | ----- | ----- |

350

| | | | | | |
|-------|------------|------------|------------|------------|------------|
| human | NGRTATREDF | LNPDVLDIFI | SSVQKVQVW | ESTRPGKKVW | LGETSSAYGG |
| mouse | NGRIATKEDF | LSSDALDTFI | LSVQKILKVT | KEITPGKKVW | LGETSSAYGG |
| rat | ----- | ----- | ----- | ----- | ----- |

400

| | | | | | |
|-------|------------|------------|------------|------------|------------|
| human | GAPLLSDTFA | AGFMWLDKLG | LSARMGIEVV | MRQVFFGAGN | YHLVDENFDP |
| mouse | GAPLLSNTFA | AGFMWLDKLG | LSAQMIEVV | MRQVFFGAGN | YHLVDENFEP |
| rat | ----- | ----- | ----- | ----- | ----- |

450

| | | | | | |
|-------|------------|------------|------------|------------|------------|
| human | LPDYWLSLLF | KKLVGTVKVM | ASVQGSKRRK | LRVYLHCTNT | DNPRYKEGDL |
| mouse | LPDYWLSLLF | KKLVGPRVLL | SRVKGPDRSK | LRVYLHCTNV | YHPRYQEGDL |
| rat | ----- | ----- | ----- | ----- | ----- |

500

| | | | | | |
|-------|------------|------------|------------|------------|------------|
| human | TLYAINLHNV | TKYLRLPYPF | SNKQVDKYL | RPLGPHGLLS | KSVQLNGLTL |
| mouse | TLYVLNLHNV | TKHLKVPPPL | FRKPVDTYLL | KPSGPDGLLS | KSVQLNGQIL |
| rat | ----- | ----- | ----- | ----- | -----L |

543

| | | | | | |
|-------|-----------|------------|------------|------------|------|
| human | KMVDQTLPP | IMEKPLRPGS | SLGLPAFSYS | FFVIRNAKVA | ACI~ |
| mouse | KMVEQTLPA | LTEKPLPAGS | ALSLPAFSYG | FFVIRNAKIA | ACI~ |
| rat | KMVEQTXPA | LTEKPLPAGS | SLSVPAFSYG | FFVIRNAKIA | ACI~ |

Fig. 17

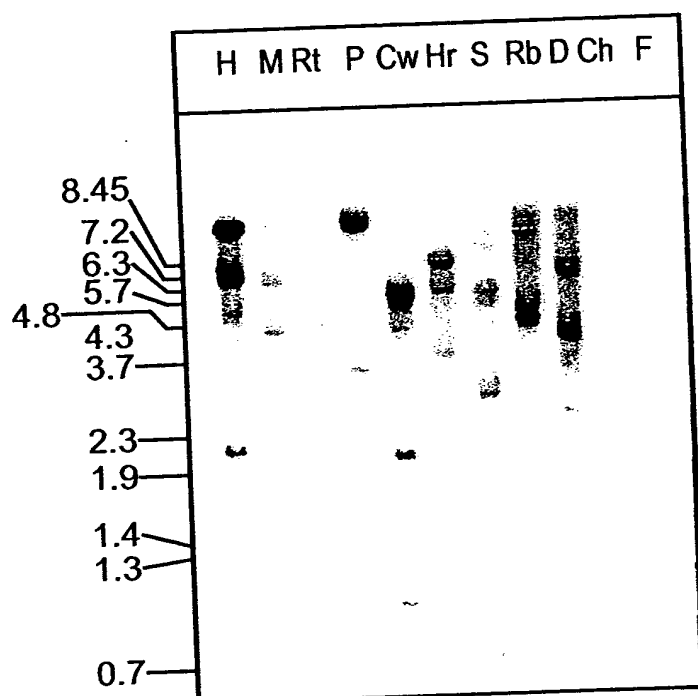


Fig. 18

|MLLRSKPALPPPLMLLLLGPLGPLSPGALPRPAQAQDVVDLDFFFTQEPLHLVSPSFLSVT| 60
 PHD | EEEEE HHH EEE EEE|

|IDANLATDPRFLILLGSPKLRTLARGLSPAYLRFGGTKTDFLI FDPKKESTFEERSYWQS| 120
 PHD | EEE EEEEE HHHHHH HHHHE EEEEE HHHHHH|

|QVNQDICKYGSIPPDVEEKLRLWEPYQEQLLLREHYQKKFKNSTYSRSSVDVLYTFANCS| 180
 PHD | HHHHHHHH HHHHHH HHHHHHHHHHHHHHHH EEEEEEEEEEE |

|GLDLIFGLNALLRTADLQWNSSNAQLLLDYCSSKGYNISWELGNEPNSFLKKADIFINGS| 240
 PHD | HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH EEEEE HHHHHH EEE |

|QLGEDYIQLHKLLRKSTFKNAKLYGPDVGQPRRKTA KMLKSFLKAGGEVIDSVTWHHYL| 300
 PHD | HHHHHHHHHHHHHHHHHH HHHHHHHHHHHHHH EEEEEEEEEEE |

|NGRTATREDFLNPDVLDIFISSVQKVQVVESTRP GKKVWLGETSSAYGGGAPLLSDTFA| 360
 PHD | HHHHHHHHHHHHEEEEEEE EEEEE HHHHHHH|

|AGFMWLDKLGLSARMGIEVVMRQVFFGAGNYHLVDENFDPLPDYWLSLLFKKLVGTVLM| 420
 PHD | HHHHHHHH HHHH HHHHHHHHHHHH EEEEE HHHHHHHHHHHH EEEEE|

|ASVQGSKRRKLRVYLHCTNTDNPRYKEGDLTYAINLHNVT KYLRLPYPFSNKQVDKYLL| 480
 PHD | EEE E EEEEEEE EEEEE EEEEE HHHHHHHH|

|RPLGPHGLLSKSVQLNGLTLKMVDDQTL PPLMEKPLRPGSSLG LPAFSYSFFVIRNAKVA| 540
 PHD | HH EEEEEEE EEEEE EEEEEEE EE |

|ACI| 543
 PHD | |

Fig. 19